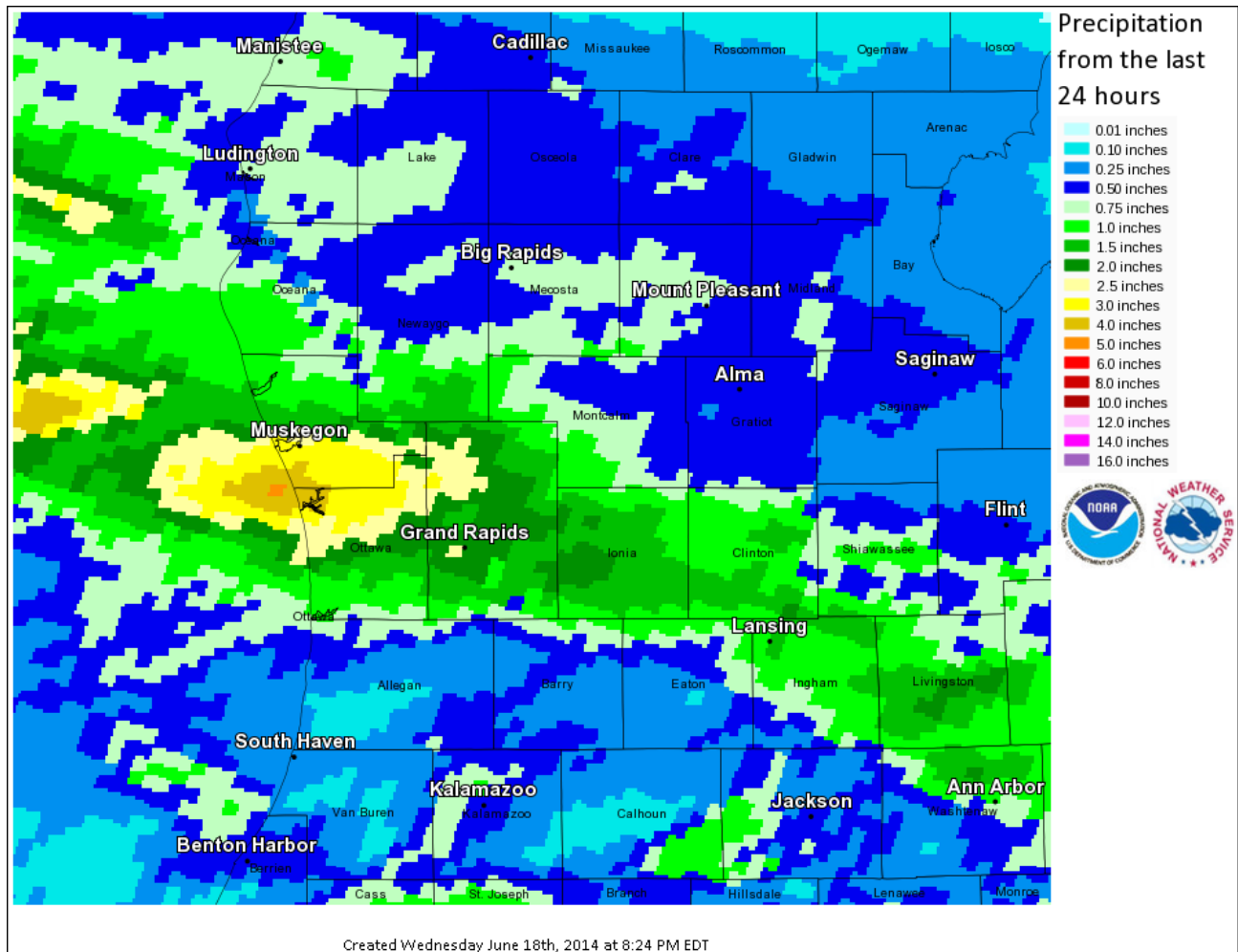


## Thunderstorms from Tuesday Night and Wednesday June 17-18, 2014

Multiple rounds of thunderstorms affected Southwest Lower Michigan beginning late Tuesday night and continued throughout Wednesday. Heavy rain and flooding impacts were common with this event, with a couple locations in Muskegon County receiving in excess of 4 inches of rainfall. Several reports of minor street flooding were received with There were also several hail reports and wind gusts in the 40-55 mph range.

### Rainfall Totals



## Severe Weather Summary – National Weather Service Grand Rapids, MI

### Summary of Flooding, Severe Hail, Wind Damage, and Heavy Rain Reports

...TIME...	...EVENT...	...CITY LOCATION...	...LAT.LON...
...DATE...	...MAG....	..COUNTY LOCATION..ST..	...SOURCE....
	..REMARKS..		
0240 AM 06/18/2014	HAIL M1.00 INCH	1 N NEW ERA OCEANA MI	43.57N 86.35W PUBLIC
0611 AM 06/18/2014	FLOOD	GRAND RAPIDS KENT MI	42.96N 85.66W BROADCAST MEDIA
SOME STREET FLOODING IS OCCURRING. REPORT COURTESY OF WOODTV.			
0641 AM 06/18/2014	FLOOD	1 N GREENVILLE MONTCALM MI	43.20N 85.25W AMATEUR RADIO
STANDING WATER ON M-91 NORTH OF GREENVILLE. WATER IS A FEW INCHES DEEP.			
0742 AM 06/18/2014	FLOOD	3 WSW ADA KENT MI	42.94N 85.54W PUBLIC
MINOR FLOODING/PONDING REPORTED AT THE INTERSECTION OF CASCADE ROAD AND SPAULDING AVENUE.			
0805 AM 06/18/2014	FLOOD	1 NNE FRUITPORT MUSKEGON MI	43.14N 86.15W COUNTY OFFICIAL
STRINGER ROAD NORTH OF FARR ROAD PARTIALLY WASHED OUT. TIME ESTIMATED.			
0806 AM 06/18/2014	FLOOD	1 N OKEMOS INGHAM MI	42.73N 84.41W PUBLIC
MINOR STREET FLOODING REPORTED AT THE INTERSECTIONS OF W GRAND RIVER AVE AND OKEMOS ROAD AND MARSH RD AT CENTRAL PARK DRIVE. ALSO REPORTED 1.13 INCHES OF RAIN IN 4 HOURS.			
0900 AM 06/18/2014	HAIL M1.00 INCH	2 ESE JAMESTOWN OTTAWA MI	42.81N 85.80W TRAINED SPOTTER

# Severe Weather Summary – National Weather Service Grand Rapids, MI

0907 AM HAIL 4 SSW GRANDVILLE 42.86N 85.78W  
06/18/2014 E1.75 INCH KENT MI COUNTY OFFICIAL

0913 AM HAIL 1 NW BYRON CENTER 42.83N 85.74W  
06/18/2014 E1.50 INCH KENT MI TRAINED SPOTTER

0915 AM HAIL 1 WNW BYRON CENTER 42.82N 85.74W  
06/18/2014 E1.25 INCH KENT MI TRAINED SPOTTER

0930 AM HEAVY RAIN 2 W ADA 42.95N 85.53W  
06/18/2014 M1.63 INCH KENT MI NWS EMPLOYEE

THIS WAS A STORM TOTAL.

1245 PM TSTM WND DMG 3 NNE MACATAWA 42.82N 86.19W  
06/18/2014 OTTAWA MI DEPT OF HIGHWAY

FOUR TREES WERE REPORTED DOWN IN PARK TOWNSHIP. THE LARGEST DIAMETER WAS 36 INCHES.

0117 PM TSTM WND DMG GRAND RAPIDS 42.97N 85.66W  
06/18/2014 KENT MI NEWSPAPER

A TREE FELL IN THE ROAD IN FRONT OF 210 COLLEGE AVE NE IN GRAND RAPIDS. TIME ESTIMATED FROM RADAR.

0122 PM TSTM WND DMG 2 W ROCKFORD 43.13N 85.60W  
06/18/2014 KENT MI BROADCAST MEDIA

SNAPPED AND SHREDDED TREES ON SIR CHARLES DRIVE IN ROCKFORD.

0125 PM FLASH FLOOD 3 W NUNICA 43.08N 86.13W  
06/18/2014 OTTAWA MI DEPT OF HIGHWAY

WATER WAS REPORTED ACROSS SEVERAL ROADS... AS WELL AS SOME EROSION TO THE SIDE OF ROADWAYS IN NORTHERN OTTAWA COUNTY.

0135 PM TSTM WND DMG MATTAWAN 42.21N 85.78W  
06/18/2014 VAN BUREN MI COUNTY OFFICIAL

A FEW LARGE TREES DOWN IN ANTWERP TWP. TIME

## Severe Weather Summary – National Weather Service Grand Rapids, MI

ESTIMATED FROM RADAR.

0135 PM TSTM WND DMG 3 NNE LOWELL 42.98N 85.32W  
06/18/2014 KENT MI NEWSPAPER

A TREE FELL IN FRONT OF A HOUSE ON THOMPSON  
DRIVE IN LOWELL. TIME ESTIMATED FROM RADAR.

0139 PM TSTM WND DMG LOWELL 42.93N 85.35W  
06/18/2014 KENT MI NEWSPAPER

A SNAPPED TREE BLOCKED A DRIVEWAY ON LINCOLN  
LAKE ROAD IN LOWELL.

0142 PM TSTM WND DMG 2 N ALAMO 42.40N 85.71W  
06/18/2014 KALAMAZOO MI 911 CALL CENTER

LARGE TREE BLOCKING HALF OF THE ROAD AT 6500  
WEST B AVE.

0142 PM TSTM WND DMG 1 W OSHTEMO 42.26N 85.69W  
06/18/2014 KALAMAZOO MI 911 CALL CENTER

LARGE TREE REPORTED BLOCKING 8TH STREET JUST  
NORTH OF STADIUM DRIVE.

0143 PM TSTM WND DMG 1 NW OSHTEMO 42.27N 85.69W  
06/18/2014 KALAMAZOO MI 911 CALL CENTER

TREE REPORTED DOWN AT 8TH ST AND ML AVE.

0148 PM TSTM WND DMG 1 NW OSHTEMO 42.27N 85.69W  
06/18/2014 KALAMAZOO MI COUNTY OFFICIAL

DOWNED TREE BLOCKING ROAD NEAR 2400 SOUTH  
8TH ST. IN OSHTEMO. TIME ESTIMATED FROM  
RADAR.

0159 PM TSTM WND DMG 4 S OSHTEMO 42.20N 85.69W  
06/18/2014 KALAMAZOO MI COUNTY OFFICIAL

TREE BLOCKING ROAD AT S 8TH ST. AND W Q AVE.  
TIME ESTIMATED FROM RADAR.

0215 PM TSTM WND DMG 3 SSE IONIA 42.94N 85.04W  
06/18/2014 IONIA MI PUBLIC

LARGE TREE DOWN. HALF OF AN OLD BARN

## Severe Weather Summary – National Weather Service Grand Rapids, MI

DEMOLISHED WITH WOOD DRIVEN INTO GROUND.

0215 PM      HEAVY RAIN            1 SSW EAST GRAND RAPIDS 42.94N 85.61W  
06/18/2014   M2.33 INCH            KENT                            MI      COOP OBSERVER

TOTAL RAINFALL SINCE THE STORMS BEGAN THIS  
MORNING.

0220 PM      TSTM WND DMG            1 NW EAGLE                    42.81N 84.80W  
06/18/2014                            CLINTON                            MI      DEPT OF HIGHWAY

A TREE REPORTED DOWN IN EAGLE TOWNSHIP.

0220 PM      TSTM WND DMG            1 ENE SPRINGFIELD            42.33N 85.21W  
06/18/2014                            CALHOUN                            MI      TRAINED SPOTTER

TREE LIMBS AND PHONE LINES REPORTED DOWN IN  
THE 800 AND 900 BLOCKS ON W MICHIGAN AVE.

0235 PM      FLOOD                    1 NW BROWNLEE PARK            42.33N 85.14W  
06/18/2014                            CALHOUN                            MI      AMATEUR RADIO

MINOR STREET FLOODING REPORTED AT THE  
INTERSECTION OF EMMETT ST AND RAYMOND RD.

0300 PM      HEAVY RAIN            SAINT JOHNS                    43.00N 84.56W  
06/18/2014   M2.41 INCH            CLINTON                            MI      TRAINED SPOTTER

TOTAL RAINFALL SINCE MIDNIGHT. 2.00 INCHES  
FELL IN 45 MINUTES THIS AFTERNOON. LOCAL  
STREET FLOODING OCCURRING. HEAVY RAIN  
DURATION NAN MINUTES

0325 PM      HEAVY RAIN            3 SE JENISON                    42.88N 85.79W  
06/18/2014   M2.15 INCH            OTTAWA                            MI      TRAINED SPOTTER

STORM TOTAL RAINFALL SINCE 2 AM. 1.50 INCHES  
FELL THROUGH 9 AM. 0.65 INCHES FELL BETWEEN  
9 AM AND 3:25 PM.

0400 PM      HEAVY RAIN            1 WNW GRAND RAPIDS            42.96N 85.68W  
06/18/2014   M2.52 INCH            KENT                            MI      MESONET

MESONET STATION 1 W GRAND RAPIDS /GDRM4/  
HEAVY RAIN DURATION 24 HOURS

0449 PM      HEAVY RAIN            1 SSE WALKER                    42.98N 85.74W  
06/18/2014   M2.41 INCH            KENT                            MI      MESONET

## Severe Weather Summary – National Weather Service Grand Rapids, MI

MESONET STATION 1 SSE WALKER /CW6936/ HEAVY  
RAIN DURATION 24 HOURS

0500 PM	HEAVY RAIN	1 NW HUDSONVILLE	42.87N 85.87W
06/18/2014	M1.54 INCH	OTTAWA MI	MESONET

MESONET STATION 1 NW HUDSONVILLE /DW5570/  
HEAVY RAIN DURATION 12 HOURS

0500 PM	HEAVY RAIN	CUTLERVILLE	42.84N 85.66W
06/18/2014	M1.58 INCH	KENT MI	MESONET

MESONET STATION CUTLERVILLE /DW9320/ HEAVY  
RAIN DURATION 24 HOURS

0501 PM	HEAVY RAIN	2 NW GRAND HAVEN	43.08N 86.25W
06/18/2014	M1.57 INCH	OTTAWA MI	MESONET

MESONET STATION 1 NW GRAND HAVEN /EW1833/  
HEAVY RAIN DURATION 12 HOURS

0502 PM	HEAVY RAIN	1 S NEWAYGO	43.40N 85.80W
06/18/2014	M1.55 INCH	NEWAYGO MI	MESONET

MESONET STATION 1 S NEWAYGO /DW1045/ HEAVY  
RAIN DURATION 24 HOURS

0503 PM	HEAVY RAIN	3 ENE GRAND VALLEY	42.99N 85.81W
06/18/2014	M1.99 INCH	OTTAWA MI	MESONET

MESONET STATION 3 ENE GRAND VALLEY /DW5733/  
HEAVY RAIN DURATION 24 HOURS

0505 PM	HEAVY RAIN	1 NW HUDSONVILLE	42.87N 85.87W
06/18/2014	M2.00 INCH	OTTAWA MI	MESONET

MESONET STATION 1 NW HUDSONVILLE /DW5570/  
HEAVY RAIN DURATION 24 HOURS

0505 PM	HEAVY RAIN	1 SE SPRING LAKE	43.06N 86.17W
06/18/2014	M3.07 INCH	OTTAWA MI	MESONET

MESONET STATION 1 ESE SPRING LAKE /AS178/  
HEAVY RAIN DURATION 24 HOURS

0505 PM	HEAVY RAIN	2 ENE NORTON SHORES	43.17N 86.22W
06/18/2014	M2.39 INCH	MUSKEGON MI	MESONET

## Severe Weather Summary – National Weather Service Grand Rapids, MI

MESONET STATION 2 ENE NORTON SHORES /AT784/  
HEAVY RAIN DURATION 12 HOURS

0640 PM	HEAVY RAIN	2 W ADA	42.95N 85.53W
06/18/2014	M2.10 INCH	KENT MI	NWS EMPLOYEE

RAINFALL SINCE MIDNIGHT. STORM TOTAL.

0719 PM	HEAVY RAIN	2 ENE NORTON SHORES	43.17N 86.22W
06/18/2014	M4.64 INCH	MUSKEGON MI	COUNTY OFFICIAL

STORM TOTAL RAINFALL. 1.75 INCHES FELL  
BETWEEN 3:30-4:00 AM.

0815 PM	HEAVY RAIN	2 NNE DUTTON	42.86N 85.57W
06/18/2014	M2.28 INCH	KENT MI	NWS EMPLOYEE

HEAVY RAIN DURATION 24 HOURS

0937 PM	HEAVY RAIN	2 W NORTON SHORES	43.16N 86.29W
06/18/2014	M5.00 INCH	MUSKEGON MI	COOP OBSERVER

A FEW INCHES OF STANDING WATER ON LAKE  
HARBOR ROAD. HEAVY RAIN DURATION 24 HOURS

### Summary of Maximum Wind Gusts on Wednesday

LOCATION	SPEED	TIME/DATE	LAT/LON
...CALHOUN...			
1 WNW BATTLE CREEK	41 MPH	0217 PM 06/18	42.31N/85.25W
...CLINTON...			
4 S DEWITT	57 MPH	0540 AM 06/18	42.78N/84.59W
...IONIA...			
3 S IONIA	41 MPH	0154 PM 06/18	42.94N/85.06W
...KENT...			
3 ENE KENTWOOD	42 MPH	0120 PM 06/18	42.89N/85.54W
EAST GRAND RAPIDS	53 MPH	0120 PM 06/18	42.95N/85.61W
...MUSKEGON...			
4 NW ROOSEVELT PARK	45 MPH	1215 PM 06/18	43.23N/86.34W
...OTTAWA...			
3 NE BEECHWOOD	43 MPH	1237 PM 06/18	42.83N/86.08W

OBSERVATIONS ARE COLLECTED FROM A VARIETY OF SOURCES WITH VARYING  
EQUIPMENT AND EXPOSURE. NOT ALL DATA LISTED ARE CONSIDERED OFFICIAL.